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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,683	10/09/2001	Lavada Campbell Boggs	KCC-14,912	5762
35844	7590	02/25/2004	EXAMINER	
PAULEY PETERSEN KINNE & ERICKSON 2800 WEST HIGGINS ROAD SUITE 365 HOFFMAN ESTATES, IL 60195			EASHOO, MARK	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/973,683		BOGGS ET AL.	
	Examiner		Art Unit	
	Mark Eashoo, Ph.D.		1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 38-49 is/are pending in the application.
- 4a) Of the above claim(s) 48 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 38-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>122702</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claim group I, claims 1-25 in the papers filed 29-DEC-2003 is acknowledged. New claims 38-47 are drawn to substantially the same subject matter as recited in group I and will be included as part of claim group I.

New claims 48-49, drawn to substantially the same subject matter as recited in group II are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected claim grouping, there being no allowable generic or linking claim. Election was made **without** traverse in the papers filed 29-DEC-2003.

Information Disclosure Statement

The information disclosure statement filed 27-DEC-2002 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. Accordingly, it has been placed in the application file and the information referred to therein has been considered as to the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, the last line of claim 1 recites cooling and collapsing the film. However, it is unclear, therefore indefinite, if these limitations refer to the first bubble or the second bubble. For the purpose of further examination, these limitations have been interpreted as referring to the second bubble because there is already a positive limitation regarding the collapse and cooling of the first bubble.

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Claims 38-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, claim 38 recites a series of limitations regarding the physical properties of the elastomer. However, it is unclear, therefore indefinite, if these properties are a result of the instant process or if these are the properties of the starting material. For the purpose of further examination, these properties have been interpreted as being a result of the instant process.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pahlke (US Pat. 3,456,044) in view of Cheung et al. (US Pat. 6,376,095) and Applicant's admitted prior art (Pg. 9, li. 19 through Pg. 10, li. 7).

Regarding claims 1 and 6: Pahlke teaches the basic claimed process of forming a biaxially oriented film, comprising: extruding (Fig. 1); blowing a first bubble (Fig. 1, element 20); simultaneously cooling and collapsing a first bubble (Fig. 1, elements 22 and 24); heating and inflating a film to form a second bubble (Fig. 2, area between elements 28 and 34); biaxially orienting the film when in the

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second bubble (3:42-69); cooling (see instant claim 6) and collapsing the second bubble (4:51-57 and Figs. 1 and 3, elements 53 and 54); and winding the film (Fig. 1).

Pahlke further teaches expanding and drawing a first bubble (1:18-41). Pahlke specifically states that orientation is performed separately (1:40-41). Since the first bubble is expanded and drawn without orientation it is intrinsic that the material is stretch thinned to some degree. However, if not intrinsic, applicant's admitted prior art teaches that stretch thinning is a conventional technique. At the time of invention a person having ordinary skill in the art would have found it obvious, if not intrinsic, to have stretch thinned a first bubble, as taught by Applicant's admitted prior art, in the process of Pahlke, in order to produce a desired film gauge before orienting.

Pahlke does not an elastic film. Nonetheless, Cheung et al. teaches an elastic film (1:15-38). Pahlke and Cheung et al. are combinable because they are from the same field of endeavor, namely polymeric thin films. At the time of invention a person having ordinary skill in the art would have found it obvious to have made a film from elastic materials, as taught by Cheung et al., in the process of Pahlke, in order to produce a desired film (1:40-65) for various saleable products (ie. economic benefit).

Regarding claim 2: Pahlke teaches orienting at a temperature lower than that of stretch thinning (3:42-50).

Regarding claim 3: Pahlke teaches stretch thinning (3:42-50) at elevated temperatures. It is intrinsic that the temperature of the first bubble is below the melting point and above a softening point since the film is in solid form and expanded in the first bubble.

Regarding claim 4: Pahlke teaches stretch thinning (3:42-50) at elevated temperatures and oriented at lower temperatures. It is intrinsic that the temperature of the second bubble is below the softening or thinning temperature and above the glass transition temperature since the film is in solid form and expanded in the second bubble.

Regarding claim 5: Pahlke teaches preheating (Fig. 1, elements 44, 46, and 48).

Regarding claim 7: Pahlke teaches a third bubble which is stretched and collapsed (Fig. 3).

Regarding claims 8 and 9: A wide range of draw ratios and blow up ratios are well known in the art and are typically dependent upon material choice and variable operating conditions. Although the examiner recognizes that the claimed process condition are not

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specifically taught, it is noted that changes in temperature, concentrations, and process conditions of an old process within the broad teaching of the prior art does not impart patentability in the absence of an unexpected result. *In re Aller*, 105 USPQ 233 (CCPA 1955).

Regarding claims 10-14 : Cheung et al. teaches an elastomeric polymer comprising styrene block co-polymers (16:25-62) and polyethylene (15:45-50) in mixtures of comprising 30-70% styrene (ie. styrene is a component of the elastomeric block co-polymer so the actual percentage would be higher than just the styrene content). Cheung et al. would have been combined for the reasons set forth above.

Claims 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pahlke (US Pat. 3,456,044) in view of Cheung et al. (US Pat. 6,376,095) and Applicant's admitted prior art (Pg.9, li. 19 through Pg. 10, li. 7).

Regarding claims 15 and 19: Pahlke teaches the basic claimed process of forming a biaxially oriented film, comprising: extruding (Fig. 1); blowing a first bubble (Fig. 1, element 20); simultaneously cooling and collapsing a first bubble (Fig. 1, elements 22 and 24); heating (see instant claim 19) and inflating a film to form a second bubble (Fig. 2, area between elements 28 and 34); biaxially orienting (see instant claim 19) the film when in the second bubble (3:42-69); cooling and collapsing the second bubble (4:51-57 and Figs. 1 and 3, elements 53 and 54); and winding the film (Fig. 1).

Pahlke further teaches expanding and drawing a first bubble (1:18-41). Pahlke specifically states that orientation is performed separately (1:40-41). Since the first bubble is expanded and drawn without orientation it is intrinsic that the material is stretch thinned to some degree. However, if not intrinsic, applicant's admitted prior art teaches that stretch thinning is a conventional technique. At the time of invention a person having ordinary skill in the art would have found it obvious, if not intrinsic, to have stretch thinned a first bubble, as taught by Applicant's admitted prior art, in the process of Pahlke, in order to produce a desired film gauge before orienting. If it is intended that the stretch thinning, in this instance is different than that of claim 1, then it is noted that during orientation the film is intrinsically stretched and thinned according to Poisson's ratio.

Pahlke does not an elastic film. Nonetheless, Cheung et al. teaches an elastic film (1:15-38). Pahlke and Cheung et al. are combinable because they are from the same field of endeavor, namely polymeric thin films. At the time of invention a person having

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ordinary skill in the art would have found it obvious to have made a film from elastic materials, as taught by Cheung et al., in the process of Pahlke, in order to produce a desired film (1:40-65) for various saleable products (ie. economic benefit).

Regarding claims 16-18: Pahlke teaches blowing internal air (Fig. 2, element 16) and an external cooling ring (Fig. 2, element 22).

Regarding claims 19 and 20: A wide range of draw ratios and blow up ratios are well known in the art and are typically dependent upon material choice and variable operating conditions. Although the examiner recognizes that the claimed process condition are not specifically taught, it is noted that changes in temperature, concentrations, and process conditions of an old process within the broad teaching of the prior art does not impart patentability in the absence of an unexpected result. *In re Aller*, 105 USPQ 233 (CCPA 1955).

Regarding claims 21-25: Cheung et al. teaches an elastomeric polymer comprising styrene block co-polymers (16:25-62) and polyethylene (15:45-50) in mixtures of comprising 30-70% styrene (ie. styrene is a component of the elastomeric block co-polymer so the actual percentage would be higher than just the styrene content). Cheung et al. would have been combined for the reasons set forth above.

Claims 38-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pahlke (US Pat. 3,456,044) in view of Cheung et al. (US Pat. 6,376,095) and Applicant's admitted prior art (Pg.9, li. 19 through Pg. 10, li. 7).

Regarding claim 38 and 44: Pahlke teaches the basic claimed process of forming a biaxially oriented film, comprising: extruding (Fig. 1); blowing a first bubble (Fig. 1, element 20); simultaneously cooling and collapsing a first bubble (Fig. 1, elements 22 and 24); heating and inflating a film to form a second bubble (Fig. 2, area between elements 28 and 34); biaxially orienting the film when in the second bubble (3:42-69); cooling and collapsing the second bubble (4:51-57 and Figs. 1 and 3, elements 53 and 54); and winding the film (Fig. 1).

Pahlke further teaches expanding and drawing a first bubble (1:18-41). Pahlke specifically states that orientation is performed separately (1:40-41). Since the first bubble is expanded and drawn without orientation it is intrinsic that the material is stretch thinned to some degree. However, if not intrinsic, applicant's admitted prior art teaches that stretch thinning is a conventional technique. At the time of invention a person having ordinary skill in the art would have found it obvious, if not intrinsic, to have stretch thinned a first bubble, as taught by Applicant's admitted prior art, in the process of Pahlke, in order to produce a desired film gauge

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before orienting. If it is intended that the stretch thinning, in this instance is different than that of claim 1, then it is noted that during orientation the film is intrinsically stretched and thinned according to Poisson's ratio.

Pahlke does not an elastic film. Nonetheless, Cheung et al. teaches an elastic film (1:15-38). Pahlke and Cheung et al. are combinable because they are from the same field of endeavor, namely polymeric thin films. At the time of invention a person having ordinary skill in the art would have found it obvious to have made a film from elastic materials, as taught by Cheung et al., in the process of Pahlke, in order to produce a desired film (1:40-65) for various saleable products (ie. economic benefit).

Pahlke does not teach the specific properties (ie. latent set, shrinkage, etc.) produced in an elastic film. However, in view of Cheung et al. it is submitted that all instantly claimed limitation have been met in the above rejection. Therefore, the claimed effects and physical properties would intrinsically be achieved by carrying out the process taught by the applied prior art. If it is applicants' position that this would not be the case: 1) evidence would be needed to be presented to support applicants' position; and 2) it would be the examiner's position that the application contains inadequate disclosure in that there is no teaching as to how to obtain the claimed properties and effects by carrying out only the instantly claimed steps.

Regarding claims 39-43: Cheung et al. teaches an elastomeric polymer comprising styrene block co-polymers (16:25-62) and polyethylene (15:45-50) in mixtures of comprising 30-70% styrene (ie. styrene is a component of the elastomeric block co-polymer so the actual percentage would be higher than just the styrene content). Cheung et al. would have been combined for the reasons set forth above.

Regarding claims 45-47: Cheung et al. teaches film thickness of 0.1 to 20 mils (22:40-52). Cheung et al. would have been combined for the reasons set forth above.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cerani and Schirmer et al. teach the basic state of the art.

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Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Eashoo, Ph.D.
Primary Examiner
Art Unit 1732

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